

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1-26 - Canceled.

Claim 27 (New). A method for operating a welding apparatus, wherein a welding torch or an electrode is fed with controlled or regulated electric power, and wherein, at least during the welding procedure, operating states are detected and transmitted to a computing unit and processed in said computing unit, whereby the detected operating states are processed according to stored specifications and compared with stored state, characterized in that the detected operating states are transmitted to the computing unit via a standardized interface, and that messages automatically allocated as a function of the comparative results are transmitted to external receivers.

Claim 28 (New). A method according to claim 27, wherein the messages are transmitted to allocated external receivers as a function of the comparative results.

Claim 29 (new). A method according to claim 27, wherein the messages are transmitted to external receivers in an allocated manner as a function of the comparative results.

Claim 30 (New). A method according to claim 27, characterized in that the messages are transmitted in the form of e-mails, via data networks, particularly the internet.

Claim 31 (New). A method according to claim 27, characterized in that the messages are transmitted in the form of short messages via mobile networks.

Claim 32 (New). A method according to claim 27, wherein the messages are transmitted in the form of facsimile transmissions via telecommunication networks.

Claim 33 (New). A method according to claim 27, wherein the messages are converted into acoustic signals to be transmitted to receivers via telecommunication or radio networks.

Claim 34 (New). A method according to claim 27, wherein the detected operating states are transmitted to the computing unit via an OPC (object link embedding for process control) interface.

Claim 35 (New). A method according to claim 27, wherein the detected operating states are transmitted to the computing unit in the binary code.

Claim 36 (New). A method according to claim 27, wherein the detected operating states are preprocessed prior to being transmitted to the computing unit.

Claim 37 (New). A method according to claim 27, wherein the specifications and/or states are stored in the computing unit.

Claim 38 (New). A method according to claim 27, wherein the specifications and/or states are stored in a database connected with the computing unit.

Claim 39 (New). A method according to claim 27, wherein a unique identification of the welding apparatus is transmitted to the external receiver along with the messages.

Claim 40 (New). A welding apparatus including an energy source (2), particularly a power source, preferably controlled or regulated by the aid of a control device (4), and at least one welding torch (10) or an electrode, particularly a welding wire, and further including at least one device for the detection of

operating states and at least one computing unit (29) connected with the at least one detection device and provided for the processing of said operating states, and, furthermore, at least one device (35) for the storage of specifications according to which the operating states are processed, and of states with which the processed operating states are compared, and at least one device (36) for the transmission of messages to external receivers (37), which is connected with the computing unit (29), characterized in that the detection devices and optionally the control device (4) are connected with the computing unit (29) via a standardized interface, and that the transmission device (36) is configured for the automatic transmission to said external receivers (37), of messages allocated as a function of the comparative results.

Claim 41 (New). A welding apparatus according to claim 40, wherein a transmission device (36) is comprised of a computing unit (29) including a connection to a data network, particularly the internet.

Claim 42 (New). A welding apparatus according to claim 40, wherein the transmission device (36) is comprised of a mobile phone, preferably a GSM (global system for mobile communication) mobile phone.

Claim 43 (New). A welding apparatus according to claim 40, wherein the transmission device (36) is comprised of a facsimile transmitter.

Claim 44 (New). A welding apparatus according to claim 40, wherein the transmission device (36) is comprised of an acoustic transmitter unit.

Claim 45 (New). A welding apparatus according to claim 40, wherein the detection devices and optionally the control device (4) are connected with the computing unit (29) by an OPC (object link embedding for process control) interface.

Claim 46 (New). A welding apparatus according to claim 40, wherein the computing unit (19) for the processing of operating states is integrated in the welding apparatus.

Claim 47 (New). A welding apparatus according to claim 40, wherein a unit (40) for the preprocessing of the detected operating states prior to their transmission to the computing unit (29) is be provided.

Claim 48 (New). A welding apparatus according to claim 40, wherein a database (35) connected with the computing unit (29) is provided for the storage of the specifications according to which

operating states are processed and/or of the states with which the operating states to be processed are compared.

Claim 49 (New). A welding apparatus according to claim 40, wherein an identification device (39) is provided.

Claim 50 (New). A welding apparatus according to claim 40, wherein an external receiver (37) is comprised of a welding apparatus.

Claim 51 (New). A welding apparatus according to claim 40, wherein at least one detection device is comprised of a temperature sensor (31).

Claim 52 (New). A welding apparatus according to claim 40, wherein at least one detection device is comprised of a camera (33), particularly a digital camera.